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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Rulemaking to Amend Part 1 and Part 21
of the Commission's Rules to Redesignate
the 27.5 - 29.5 GHz Frequency Band and
to Establish Rules and Policies for
Local Multipoint Distribution Service

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CC Docket No. 92-297

RM-7872

RM-7722

MOTION OF TEXAS INSTRUMENTS, INC.
FOR LEAVE TO FILE SUPPLEMENTAL COMMENTS

Texas Instruments Incorporated ("TI"), by its attorneys, hereby requests that the Commission accept the Supplemental Comments attached hereto and incorporate them into the above captioned proceeding. In these comments, TI reiterates its reasons for seeking to participate in the proposed negotiated rulemaking and identifies its chosen representative to serve on the proposed advisory committee. Consideration of this information will aid the Commission in selecting the proper mix of participants for this proposed committee.

Respectfully Submitted,

TEXAS INSTRUMENTS INCORPORATED

By: 
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May 20, 1994

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SUPPLEMENTAL COMMENTS

Texas Instruments Incorporated ("TI"), by its attorneys, hereby supplements its earlier filed application for membership in the negotiated rulemaking in the above captioned proceeding.¹ In its application, TI voiced its support for a negotiated rulemaking to address the technical questions associated with facilitating the shared use of the 27.5 - 29.5 GHz band ("28 GHz band") by the proposed local multipoint distribution service ("LMDS") and the mobile satellite service ("MSS"). In this pleading, TI reiterates its reasons for seeking membership on the negotiated rulemaking committee and formally introduces its designated employee that would lead the TI team during this process.

¹ The FCC solicited applications to participate in this negotiated rulemaking by a Public Notice in CC Docket No. 92-297 (Feb. 11, 1994), 59 Fed. Reg. 7961 (Feb. 17, 1994) ("Public Notice").

I. TEXAS INSTRUMENTS HAS SATISFIED THE STANDARD FOR INCLUSION ON THE NEGOTIATED RULEMAKING COMMITTEE.

In the Public Notice announcing the proposed formation of an advisory committee in this proceeding, the Commission invited entities that will be "significantly affected" by the proposed rules and whose "interests will not be adequately represented" by other participants to apply for membership on the proposed committee.² In its earlier comments, TI indicated that it satisfied both of these criteria because:

- TI is committed to becoming a leading developer and manufacturer of LMDS technology. The Commission has specifically recognized that LMDS equipment manufacturers will be "significantly affected" by the proposed rules.³
- TI is an established technical company equipment whose depth and breadth of experience in technology directly relevant to the success of LMDS is unrivaled by any other affected entities participating in this proceeding. Also, as a major supplier of electronic components to the satellite industry, TI is uniquely qualified to consider technical solutions for maximizing the shared use of spectrum by these two divergent services.

Texas Instruments is pursuing the development of LMDS technology because it believes that broadband delivery of wireless telecommunications services directly to homes is a legitimate business opportunity promising potentially huge public interest benefits in increased diversity and competition in the consumer marketplace. Further, TI believes that technology has sufficiently advanced to the point where commercial

² Public Notice at ¶ 11.

³ Id. at ¶ 7.

utilization of millimeter-wave frequencies is possible in a cost-effective manner. For these reasons, TI has dedicated the resources of its Defense Systems and Electronics Group, a 1992 winner of the Malcolm Baldrige National Quality Award in manufacturing, to leverage its experience in extremely high frequency operation, antenna design and digital signal processing in developing consumer grade LMDS equipment. Coupled with its leadership in the design and manufacture of Gallium Arsenide ("GaAs") semiconductor products and monolithic microwave integrated devices ("MMICs") and with insights gained from the consumer electronics industry, TI is uniquely positioned to translate the promise of LMDS into reality.

Since the initiation of this proceeding, TI has been conducting field tests of pre-prototype engineering models to confirm the efficacy of LMDS theory. For the most part, the critical RF components of this test equipment are TI developed and are integrated at the system level in a manner proprietary to TI. Coupled with continuing propagation experiments in the 28 GHz band and the development of consumer grade LMDS receive antennas, TI will complete the refinement of its LMDS technology quickly after final technical rules in this proceeding have been adopted. The rules ultimately adopted to promote shared use of the 28 GHz band, however, are critical to this development.⁴

No other party tentatively identified by the Commission as "significantly affected" would adequately represent TI's interests in this proceeding. While some

⁴ In this regard, the likely alternatives for promoting LMDS and MSS shared use of the 28 GHz band (i.e., geographical separation of facilities, frequency separation, or suitable technical standards) all promise to affect the final design of LMDS infrastructure.

parties would bring technical competence on general millimeter wave propagation matters, no other applicant combines the fundamental technology background in this area with semiconductor manufacturing expertise and experience in the marketing of consumer products. In this regard, TI will be able to provide the committee with tangible data on the economic costs associated with various proposed sharing solutions. Likewise, TI's satellite expertise would be beneficial in reviewing the needs of that industry as well.

In summary, TI is a committed manufacturer of LMDS systems whose experience in wide-scale deployment and marketing of technological devices is unique among the participants of this proceeding. TI looks forward to working out the technical solutions and compromises needed to resolve what is essentially a spectrum compatibility issue. TI deserves to be included in this advisory committee.

II. TI NOMINATES SENIOR FELLOW EUGENE ROBINSON AS ITS REPRESENTATIVE ON THE NEGOTIATED RULEMAKING COMMITTEE.

TI nominates Eugene A. Robinson as its designated representative for the negotiated rulemaking advisory committee. Mr. Robinson is a senior member of TI's staff who will be able to mobilize the company's vast resources in order to assist in the resolution of LMDS issues.

In a technology company,⁵ Mr. Robinson has achieved one of the company's highest technical position -- TI Senior Fellow. A holder of a Masters Degree in Electrical Engineering, Mr. Robinson has nearly twenty years experience in radio-navigation development and design. More recently, Mr. Robinson has also served as TI's Missile Systems Chief Engineer and Technical Director for major weapons programs. His design experience coupled with his ability to utilize TI's engineering capabilities will serve the advisory committee well as it searches for technological solutions to shared spectrum use. The selection of Mr. Robinson reaffirms TI's commitment to the successful development of the LMDS service.

III. TI IS COMMITTED TO DEVELOPING CONSENSUS POSITIONS IN THE MOST EXPEDIENT MANNER.

TI affirmatively states its intention to cooperate fully and participate so that the advisory committee may complete its mission in a timely and successful manner. To this end, TI sees its role as a facilitator of solutions to help bridge whatever gaps may exist between mobile satellite and local multipoint distribution service providers. Of course, TI would like to be part of a successful terrestrial industry that offers consumers new options for the delivery of video entertainment and other telecommunications services. On the other hand, TI recognizes that the success of LMDS cannot be built upon the demise of the mobile satellite industry. As a company

⁵ Approximately 20,000 of TI's 60,000 employees are hired as engineers and only 58 engineers have achieved the title of "TI Fellow".

that understands the technology behind both industries, TI can position itself in a proactive manner to ensure that all realistic technical solutions are explored.

TI understands that the Commission is obliged under the Federal Advisory Committee Act to limit the number of participants in the committee to 25 and that slightly more than 30 entities have formally applied for membership in this instant proceeding.⁶ Although TI is mindful of the problems associated with an unwieldy number of committee participants, it also believes that the need to provide balance far outweighs any incremental benefit gained from limiting committee size to 25. TI therefore urges the Commission to ensure that all significantly affected parties have an equal voice in formulating LMDS/MSS spectrum usage policy.

IV. CONCLUSION.

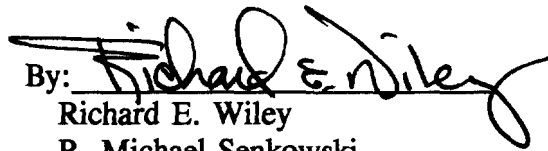
TI has adequately demonstrated that it satisfies all criteria to participate on the Commission's LMDS advisory committee. As a developer of LMDS equipment, TI qualifies as a entity significantly affected by the proposed rules. Through its experience as a manufacturer and marketer of large volume consumer grade electronic products as well as sophisticated microwave devices, it stands unrepresented by any of the parties tentatively identified by the FCC as likely participants. Clearly, TI brings technical and manufacturing expertise to the table. Further, through its selection of a senior official to represent it in this project, TI has demonstrated its commitment to the

⁶ Section 5 U.S.C. §565(b) provides that agencies shall limit membership on a negotiated rulemaking committee to 25 unless the agency head determines that a greater number is necessary for the functioning of the committee or necessary to achieve balance.

speedy and satisfactory resolution of this proceeding in order that new communications options can be introduced rapidly to American consumers.

Respectfully Submitted,

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May 20, 1994

CERTIFICATE OF SERVICE

I hereby certify that on the 20th day of May, 1994, I caused copies of the foregoing "Supplemental Comments" to be messengered to the following.


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